

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-007018**Date Inspected:** 21-Jan-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sun Wei / Sun Bo**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Components**Summary of Items Observed:**

The Caltrans (CT) Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

**OBG Sub-Assembly Bay 9:**

The QA Inspector randomly observed ZPMC welder Jiang Mao Fang ID 201250, utilizing the Flux Cored Arc Welding (FCAW) Process in the 3G (Vertical Groove) position with ZPMC Weld Procedure Specification (WPS) WPS-B-T-2233, to weld the splices between U-Rib sections U-86/U-137 at Weld Joint (WJ) DP275-001-119 and U-88/U138 at WJ DP275-001-118. The QA Inspector randomly observed ZPMC QC verifying weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed 1 helper utilizing an angle grinder to clean up an excavation after Carbon Air Arc Gouging operations in Complete Joint Penetration (CJP) WJ 017, attaching a 35 millimeter (mm) thick I-Rib to Deck Plate (1AE)-DP595-001. The rejects were the result of ZPMC Ultrasonic Testing (UT) Examination.

The QA Inspector randomly observed 3 ZPMC magnetic drill operators drilling bolt holes in U-Ribs prior to forming.

The QA Inspector randomly observed ZPMC welder Dai Xi Chen ID 066012 utilizing the FCAW Process in the

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## WELDING INSPECTION REPORT

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2G (Horizontal Groove) position with ZPMC WPS WPS-B-T-2233, to weld the fill pass in WJ (1AE)-DP580-001-009. The QA Inspector randomly observed ZPMC QC verifying weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welders Jiang Ting Guang ID 062265 and Xu Guo Yin ID 059443, utilizing the FCAW Process in the 2G (Horizontal Groove) position with ZPMC WPS WPS-345-FCAW-2G(2F)-Repair-1, to perform weld repairs to excavations in WJ (1AE)-DP590-001-013 and 021 respectively. The QA Inspector randomly observed ZPMC QC verifying weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Zheng Ming Ye ID 066695, utilizing the FCAW Process in the 2G (Horizontal Groove) position with ZPMC WPS WPS-B-T-2233, to weld the fill pass in WJ (1AW)-DP575-001-017. The QA Inspector randomly observed ZPMC QC verifying weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Song Yin Shu ID 059421, utilizing the FCAW Process in the 2G (Horizontal Groove) position with ZPMC WPS WPS-345-FCAW-2G(2F)-Repair-1, to perform a weld repair to an excavation in WJ (1AW)-DP560-001-013. The QA Inspector randomly observed ZPMC QC verifying weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed a ZPMC Carbon Air Arc Gouging Operator utilizing the Carbon Air Arc Gouging process to excavate an area in Complete Joint Penetration (CJP) WJ 017 in Deck Plate DP585-002 to remove a reject detected during ZPMC Quality Control (QC) Ultrasonic Testing (UT) Inspection.

The QA Inspector randomly observed 2 ZPMC Carbon Air Arc Gouging Operators utilizing the Carbon Air Arc Gouging process to excavate areas on both sides of CJP WJ 014 in Deck Plate DP570-001 to remove rejects detected during ZPMC QC UT Inspection.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

### Summary of Conversations:

No relevant conversations

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150-0042-2372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Franco,Charlie	Quality Assurance Inspector
<b>Reviewed By:</b>	Clifford,William	QA Reviewer

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